

**CAVIHEMIPTLOCERA, A NEW GENUS FOR MYELOIS EXOLETA ZELLER**  
(LEPIDOPTERA: PYRALIDAE: PHYCITINAE)

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**ABSTRACT.** A new genus, *Cavihemiptlocera* Neunzig, is proposed for *Myelois exoleta* Zeller, a species occurring in South America. The new genus is described and illustrations are provided for the previously unknown male as well as for the female.

**Additional key words:** Phycitinae, Brazil, Colombia, Ecuador.

Zeller in 1851 described *Myelois exoleta* along with other new species of Phycitinae collected in Colombia, South America. Ragonot (1893) moved the species from the broadly conceived category *Myelois* to his more narrowly defined new genus *Hemiptlocera*. Heinrich (1956) in his revision of the American phycitines reluctantly followed Ragonot in including *exoleta* in *Hemiptlocera*. He pointed out that the placement was tenuous because the species was known only from the female type specimen, and that his examination of the genitalia of the type revealed features not found in the genitalia of other species included in *Hemiptlocera*.

I have examined recently collected South American phycitines in the National Museum of Natural History, Washington, D.C., U.S.A. and the Becker Collection, Brasilia, Brazil, and have found additional specimens of *exoleta*, both males and females. A study of the males does not support keeping the species in *Hemiptlocera*. Particularly pertinent are differences in the antenna, the gnathos, the sacculus, and the aedoeagus. Therefore, I propose in this paper a new genus for *exoleta*.

Abbreviations used for depositories of types and other specimens are as follows: Becker Collection, Universidade de Brasilia, Brazil [VOB]; National Museum of Natural History, Washington, D.C., U.S.A. [USNM]; Natural History Museum, London, England [BMNH]; North Carolina State University Insect Collection, Raleigh, North Carolina, U.S.A. [NCSU].

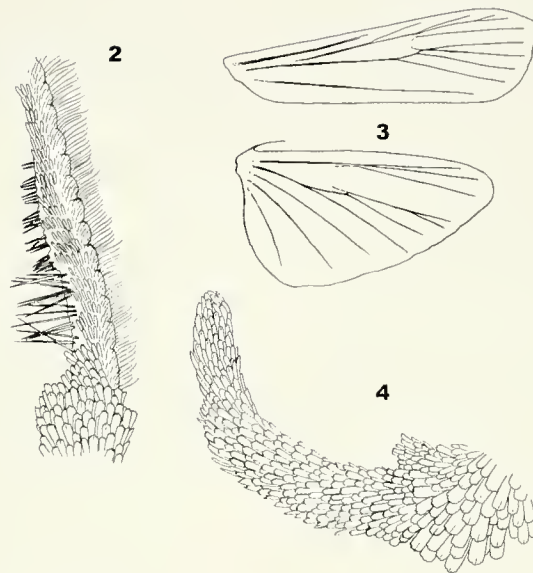
***Cavihemiptlocera* Neunzig, New genus**Type species. - *Myelois exoleta* Zeller 1851

**Diagnosis.** The base of the shaft of the antenna has a row of long, slender spines followed closely distally by clusters of short, slender spines (Fig. 2), the transtilla bears posteriorly strongly developed, sinuous hooks (Fig. 5), and the dorsum of each papilla analis has a shallow, sclerotized pocket (Fig. 7).

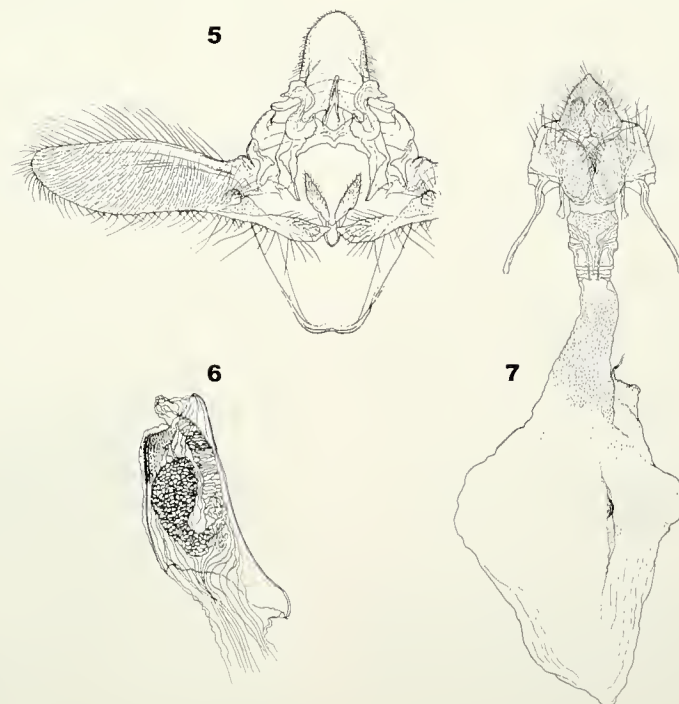
**Description.** Antenna of male (Fig. 2): shaft with shallow sinus basally and associated row of long slender, straight spines (spines about 1 1/2 times as long as diameter of base of shaft); shaft just distal

of sinus with additional row of about six clusters of short, straight spines (spines about 1/2 length of spines in sinus); sensilla trichodea (cilia) about 3/4 as long as diameter of base of shaft. Antenna of female: simple. Frons of both sexes: convex, smooth-scaled to slightly rough-scaled. Vertex of both sexes: rough-scaled. Labial palpus of both sexes (Fig. 4): upcurved, reaching vertex. Maxillary palpus of both sexes: simple, short-scaled. Haustellum: well developed in both sexes. Ocellus: present in both sexes. Forewing of male (Fig. 3): smooth-scaled, with 11 veins;  $R_{3+4}$  and  $R_5$  stalked for about 3/5 distance beyond cell;  $M_1$  from near anterodistal angle of cell;  $M_2$  and  $M_3$  shortly fused at base;  $CuA_1$  from near posterodistal angle of cell;  $CuA_2$  from well before posterodistal angle of cell. Hindwing of male (Fig. 3): with 8 veins (1A, 2A, and 3A together treated as one vein);  $Sc+R_1$  and  $R_s$  contiguous, or close together, for about 1/2 distance beyond cell;  $M_2$  and  $M_3$  fused for about 2/3 distance beyond cell;  $CuA_1$  from near posterodistal angle of cell;  $CuA_2$  from well before posterodistal angle of cell. Female wings as in male. Male abdominal segment 8 with ventral tuft of scales; scales forming tuft numerous, thin, setalike, slightly curved. Female abdominal segment 8 simple. Male genitalia (Figs. 5, 6): uncus hoodlike; gnathos with distal element a short hook; transtilla strongly developed, distally with pair of large, sinuate, partly-serrate, broad hooks; juxta V-shaped, with posterolateral lobes pointed and with short setae; valva well developed, moderately slender with strongly developed, knoblike lobe arising from basal surface; sacculus well integrated into rest of valva; aedoeagus short, robust, in part spinose distally; vesica with large, globular, dense cluster of short cornuti; vinculum shorter than greatest width. Female genitalia (Fig. 7): papilla analis each with shallow, sclerotized dorsal pocket; collar of abdominal segment 8 with median-dorsal, invaginated, sclerotized, V-shaped recess and associated pair of subventral, elongate, sclerotized and scobinate lobes; ostium bursae heavily sclerotized, ventrally with V-shaped, grooved structure; ductus bursae about 1/2 as long as corpus bursae, strongly scobinate throughout its length; corpus bursae heartshaped, with posterior half

FIG. 1. Habitus of male *Cavihemiptlocera exoleta*.



FIGS. 2-4. Antenna, wings and labial palpus of male *Cavihemptilocera exoleta*. 2, left antenna, frontal view. 3, right forewing and hindwing venation, dorsal view. 4, left labial palpus, lateral view.



FIGS. 5-7. Genitalia of *Cavihemptilocera exoleta*. 5, male, ventral view, right valva and aedoeagus omitted. 6, aedoeagus. 7, female, ventral view (dorsal pocket of each papilla analis showing through ventral integument)

scobinate; signum a small, invaginated, dense concentric cluster of scobinations; ductus seminalis arising from corpus bursae near junction of ductus bursae and corpus bursae.

**Etymology.** The genus name is a combination of the Latin *cav* - (hollow or cave) referring to the unique dorsal pockets on the papillae anales, and the related genus *Hemiptilocera*. The gender of *Cavihemiptilocera* is feminine.

***Cavihemiptilocera exoleta* (Zeller),  
new combination (Figs. 1–7)**

*Myelois exoleta* Zeller 1881: 201.

*Hemiptilocera exoleta* (Zeller). Ragonot 1893: 146.

Type locality. Honda, Colombia

**Description.** Head: frons and vertex ochre to dark brown; labial palpus outwardly mostly dark brown, basal segment ochre in some specimens; maxillary palpus mostly dark brown with ochre or reddish brown scales in some specimens. Thorax: dorsum mostly ochre or pale brown washed with dark brown. Forewing: length 11.0–12.5 mm; ground color brown; patch of reddish brown and black at base; small ochre patch subbasally near costa; antemedial line obscure, ochre, distinguishable at costa where it is bordered proximally and distally with black; postmedial line weak to moderately distinct, ochre, bordered proximally by black band; terminal area washed with reddish brown and ochre and with black, longitudinal streaks on anterior half and row of black transverse, terminal spots; discal spots replaced by large distinctive, reddish brown and black lunule. Hindwing: mostly hyaline, black along margins of wing in male; mostly brown, black along margins of wing in female. Male and female genitalia as described for genus.

**Material Examined.** Brazil: 1 ♀, Amazonas, Manaus, BR-174 km. 64, 2f–3 km. 7 Faz. Porto Alegre, 2°22'20" S/59°56'29" W, R-3304, 13-14/81 1996, R.W. Hutchings Col., 15W UV light trap at 1,200-c., genitalia slide 6147 HHN [USNM]. Colombia: 1 ♀ (type), (Cundinamarca), Honda, (Petersen) [BMNH]. Ecuador: 2 ♂, Napo, Misahualli, 450 m, XII 11 1992, V.O. Becker, genitalia slide 5848 HHN [VOB] [NCSU].

**Remarks.** A comparison of *Cavihemiptilocera* and *Hemiptilocera chinographella* Ragonot (type species of

*Hemiptilocera*) shows: the male genitalia of *Cavihemiptilocera* have the gnathos entire distally, the sacculus well integrated into the rest of the valva, and the vesica has a large, globular, dense cluster of short cornuti; whereas, the male genitalia of *Hemiptilocera* have gnathos notched distally, the sacculus partially separated from the rest of the valva, and the vesica has a single cornutus.

The female genitalia of *Cavihemiptilocera* have: each papilla analis with a sclerotized dorsal pocket, the eighth abdominal collar and a V-shaped recess, in contrast to the female genitalia of *Hemiptilocera* that are without sclerotized dorsal pockets in each papilla analis and the eighth abdominal segment is without a V-shaped recess.

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